

REMARKS

In the Office Action, the Examiner objected to the Abstract; rejected claim 18 under 35 U.S.C. 112; rejected claims 1, 3-4, 8-15, 17-22 and 24-25 under 35 U.S.C. 102(e); and rejected claims 2, 5-6, and 23 under 35 U.S.C. 103(a). In response, Applicants have amended the specification and claims 1, 12, and 18. Applicants submit that the subject application is in condition for allowance.

Abstract

Applicants have amended the Abstract to comply with the Examiner's objection. According to the word processing software used to generate this Amendment, the amended Abstract contains 125 words.

Claim Rejection Under 35 U.S.C. 112

Applicants have amended claim 18 to comply with the Examiner's rejection under section 112, second paragraph. Applicants submit that this claim meets the requirements of 35 U.S.C. 112.

Claim Rejections Under 35 U.S.C. 102(e)

The Examiner rejected claims 1, 3-4, 8-15, 17-22 and 24-25 under 35 U.S.C. 102(e) as being anticipated by von Oepen (USP 6,193,747). In response, Applicant has amended claims 1 and 12 to

recite features of the claimed stent that are not present in the devices disclosed in the von Oepen patent.

Specifically, the von Oepen patent discloses a stent having a sinusoidal web pattern connected by “spring elements” of several disclosed shapes. For example, the Examiner refers to the Figure 8 structure, which includes a sinusoidal web pattern 62 separated by spring elements 64 and 65.

In contrast, amended claim 1 recites that the cylindrical bands are “non-sinusoidal”, and amended claim 12 recites that the bat-shaped cells are formed “from non-sinusoidal cylindrical bands” in the tubular body. Further, each of claims 1 and 12 recites that the longitudinal connectors connecting adjacent cells are “straight”. Thus, each of claims 1 and 12 distinguishes over the stents shown in the von Oepen patent. Each of the other rejected claims is dependent on one or the other of claims 1 and 12, and each is therefore distinguished from von Oepen on the same basis.

Accordingly, because each of the independent claims of the present application contains limitations not found in the von Oepen patent, the section 102(e) rejection is overcome and the claims are in condition for allowance.

Claim Rejections Under 35 U.S.C. 103(a)

The Examiner rejected claims 2, 5-6, and 23 under 35 U.S.C. 103(a) as being unpatentable over the von Oepen patent in view of Steinke (USP 6,224,626) (as to claims 2 and 23) and Khosravi et al. (USP 5,824,054) (as to claims 5-6). Because neither of the cited references, either alone or in

combination, discloses, teaches, or suggests the subject matter of the claims as presently amended, reconsideration and withdrawal of the rejections is respectfully requested.

Specifically, the section 103 rejections are based upon the same analysis of the von Oepen patent addressed above in relation to the section 102(e) rejections. Accordingly, for the same reasons set forth above, the combination of the von Oepen, Steinke, and Khosravi et al. patents fail to disclose all of the limitations recited in the amended claims. The claims are, therefore, in condition for allowance.

CONCLUSION

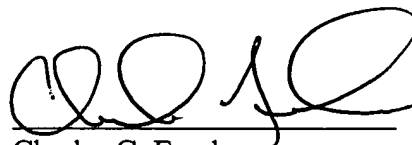
In view of the foregoing, it is submitted that the claims presented in this application define patentable subject matter over the cited prior art. Accordingly, reconsideration and allowance of the application is requested.

Respectfully submitted,

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VERSION WITH MARKINGS SHOWING AMENDMENTS:

IN THE ABSTRACT:

A coiled-sheet stent includes a tubular body having a longitudinal axis and a circumference, and a plurality of cylindrical bands formed in the tubular body, each band having a zig-zag pattern including a series of sequential diagonal elements connected to one another and extending about the circumference. A plurality of longitudinal connectors extend between and connect adjacent bands. The diagonal elements have an arcuate shape, all diagonal elements in each band being oriented in either a clockwise or counter-clockwise direction about the circumference. The tubular body is expandable between contracted and enlarged conditions, and the zig-zag pattern is expandable between [un]stretched and unstretched conditions, the zig-zag pattern being biased towards the stretched condition above a transition temperature, thereby at least partially defining the enlarged condition.[A multi-cellular stent structure is also provided that includes a plurality of bat shaped cells formed in a tubular body, each cell defining a head region, a tail region and opposing curved wing regions, and a plurality of connectors extending between and connecting adjacent cells. The head and tail regions of adjacent cells are directly connected to one another, and connectors extend between adjacent wing regions of adjacent cells.]

IN THE CLAIMS:

1. A stent, comprising:

a generally tubular body having a longitudinal axis and a circumference, and having a size adapted for introduction into a body lumen;

a plurality of cylindrical bands formed in the tubular body, each band comprising a generally non-sinusoidal zig-zag pattern comprising a series of sequential diagonal elements connected to one another and extending about the circumference, the diagonal elements having a generally arcuate shape, all diagonal elements in each band being oriented in either a clockwise or counter-clockwise direction about the circumference; and

a plurality of straight longitudinal connectors extending between and connecting each of the adjacent bands, each longitudinal connector extending substantially parallel to the longitudinal axis.

12. A stent, comprising:

a generally tubular body having a longitudinal axis and a circumference, and having a size adapted for introduction into a body lumen;

a plurality of generally bat-shaped cells formed from non-sinusoidal cylindrical bands in the tubular body, each cell defining a head region, a tail region and opposing curved wing regions, the head region of each cell being connected to the tail region of an adjacent cell; and

a plurality of straight longitudinal connectors extending between and connecting each of the adjacent cells, each connector extending substantially parallel to the longitudinal axis.

18. The stent of claim 17, wherein the curved portion defines an apex of the ["V" shaped] curved wing regions, the apices all pointing substantially in a single direction.